APPENDIX A

Opinion of the Court of Appeals for the Federal Circuit

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

01-1090
(Interference No. 104,193)

SHINPEI OKAJIMA,

Appellant,

v.

JOEL BOURDEAU,

Appellee.

DECIDED: August 16, 2001

Before MAYER, Chief Judge, MICHEL, and LINN, Circuit Judges.

MICHEL, Circuit Judge.

This is a patent interference case concerning the issue of obviousness. Shinpei Okajima appeals the August 30, 2000 Final Decision and Judgment of the Board of Patent Appeals and Interferences ("Board") of the United States Patent and Trademark Office ("PTO") which held that claims 13-24 and 26-28 of Joel Bourdeau's application are not unpatentable for obviousness. Because substantial evidence supports the Board's findings underlying its conclusion of nonobviousness, and the Board's decision was untainted by legal error, we affirm.

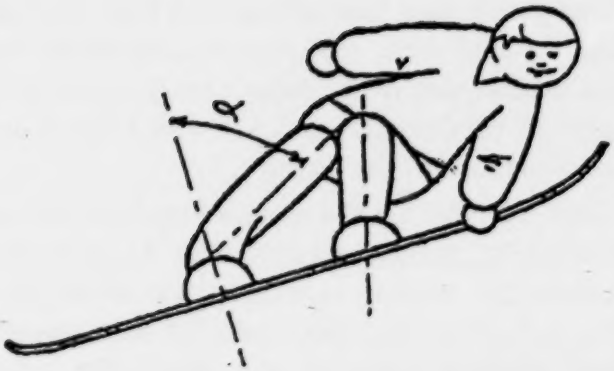
Background

On April 30, 1998, the PTO declared this interference between Okajima's U.S. patent application No. 08/665,679, filed June 18, 1996, and Bourdeau's U.S. patent application No. 08/676,928, filed July 8, 1996. By virtue of his earlier filing date, Okajima was initially designated the senior party. However, the Board accorded Bourdeau priority upon determining that he was entitled to a priority date of July 11, 1995, the filing date of Bourdeau's French application 95.08587. On appeal, Okajima does not contest priority.

Okajima filed a preliminary motion for judgment against Bourdeau's claims 13-24 and 26-28 on the ground that these claims are unpatentable over the prior art. The administrative patent judge ruled that these claims are not unpatentable under 35 U.S.C. § 103 in light of various combinations of prior art references, including European Patent Office Publication No. 356,400 (EP '400), published February 28, 1990; German Offenlegungsschift DE 4,333,503 (DE '503), published April 6, 1995; and U.S. Patent 5,401,041 (US '041), issued March 28, 1995. After a final hearing, the Board upheld the patentability of the subject matter of the count and Bourdeau's claims. This ruling is the subject of Okajima's appeal.

Bourdeau's claims are directed to a snowboard boot. The application, as depicted in the diagram below, discloses that a snowboarder typically bends his or her legs frontwardly and laterally, with the downhill foot inclined more sharply:[15]

[15] This drawing from Bourdeau's French application is substantively similar to the analogous drawing appearing in his U.S. application, but is more illustrative and reproducible.



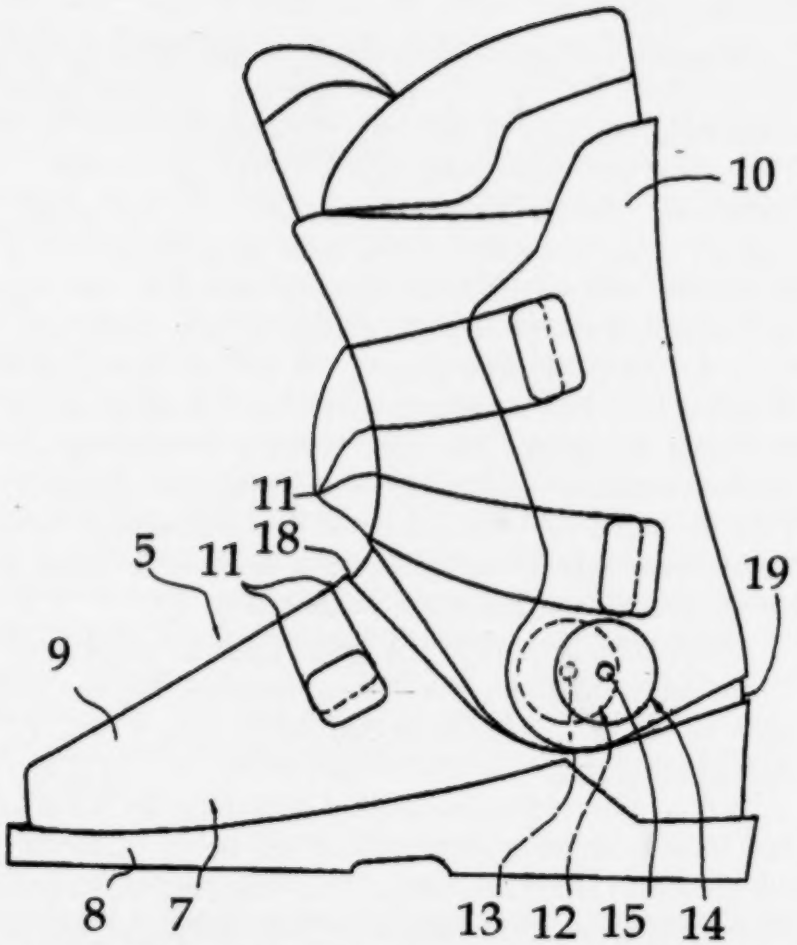
Bourdeau's claimed boot has a rigid shell surrounding the foot and a rigid back portion that cradles the back of the leg. The two pieces are joined by, among other things, a broad, rounded pin called a "journal," which permits the pieces thereby joined to pivot about an axis. The placement of the journal is key to Bourdeau's invention. Prior art boots (including DE '503 and US '041) had the journal in the back of the boot, on the boot's longitudinal median plane, such that the journal was positioned upon the snowboarder's Achilles tendon. This design allowed for substantial lateral movement, but restricted the skier's ability to bend his or her leg forward. The placement of the journal on the Achilles tendon also produced discomfort. Other prior art boots (including EP '400) had two journals, set atop the user's ankle bones, which primarily affords longitudinal flexibility. Bourdeau's allegedly nonobvious contribution to the snowboard boot art includes making a boot with a single journal that is offset from the medial plane of the boot, such that it rests in the recessed area between the Achilles tendon and the internal malleolus (i.e., the bony protuberance of the ankle) of the snowboarder.

In Bourdeau's claimed boot, the axis of the journal is disposed at an angle between 20° and 45° with respect to the longitudinal median plane of the boot (i.e., the plane running from toe to heel, and up and down through the boot).

Bourdeau's claim 13, representative for present purposes, recites a "journal attachment journalling said back portion to said rear portion of said shell, said journal attachment being positioned on a medial side of the boot, along a journal axis forming an angle of between 20° and 45° with respect to the longitudinal median plane of the boot."

Bourdeau discloses that such a design improves not only the comfort of the boot, but also its mobility. As stated in his application, when the journal is placed too close to the Achilles tendon (i.e., at an angle less than 20° with respect to the longitudinal median plane of the boot), the user is afforded greater lateral mobility to the prejudice of the user's ability to bend forward. Contrarily, when the journal is placed too far towards the ankle (i.e., at an angle greater than 45° with respect to the longitudinal median plane of the boot) the user gains greater ability to bend forward, but loses lateral flexibility. Bourdeau discloses that placing the journal at an angle between 20° and 45° with respect to the longitudinal median plane of the boot provides optimal forward and lateral bending capacity.

Following is a diagram of the snowboard boot disclosed in EP '400, showing the use of two opposing journals 12 and 14, which the patent describes are located "in front of the outer ankle bone." EP '400, col. 4, ll. 3-4 (citation to original, translated from German).



Among its findings, the Board found that one of ordinary skill in the art would not have been motivated to combine the teachings of EP '400 (disclosing two opposing laterally-disposed journals atop the ankle) with DE '503 and US '041 (disclosing a single journal atop the Achilles tendon). Accordingly, the Board determined that Bourdeau's claimed boot was not unpatentable for obviousness in light of the prior art under 35 U.S.C. § 103. Okajima filed a timely notice of appeal to this court. We have jurisdiction pursuant

to 28 U.S.C. § 1295(a)(4) and 35 U.S.C. § 141. We heard oral argument in this appeal on June 7, 2001.

Discussion

Whether a claimed invention is unpatentable as obvious under 35 U.S.C. § 103 is a question of law based on underlying findings of fact. In re Gartside, 203 F.3d 1305, 1316, 53 USPQ2d 1769, 1776 (Fed. Cir. 2000). The underlying factual inquiries include: (1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; and (3) the differences between the claimed invention and the prior art. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 460 (1966). On appeal, the Board's ultimate determination of nonobviousness is reviewed de novo, but the Board's underlying factual findings are reviewed for substantial evidence. Gartside, 203 F.3d at 1316, 53 USPQ2d at 1776. Substantial evidence means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. Id.

Okajima contends that the Board erred as a matter of law by failing to make any findings of fact regarding the level of skill in the art. As described in Al-Site Corp. v. VSI International, Inc., 174 F.3d 1308, 1324, 50 USPQ2d 1161, 1171 (Fed. Cir. 1999), the level of skill in the art is a prism or lens through which a judge, jury, or the Board views the prior art and the claimed invention. This reference point prevents these factfinders from using their own insight or, worse yet, hindsight, to gauge obviousness. Id. Skill in the art does not act as a bridge over gaps in substantive presentation of an obviousness case, but instead supplies an important guarantee of objectivity in the process. Id. (citing Ryko Mfg. Co. v. Nu-Star, Inc., 950 F.2d 714, 718, 21 USPQ2d 1053, 1057 (Fed. Cir. 1991)). While it is always preferable for the factfinder below to specify the level of skill it has found to apply to the invention at issue, the absence of specific findings on the level of skill in the art does not give rise to reversible error "where the prior art itself reflects an

appropriate level and a need for testimony is not shown." Litton Indus. Prods., Inc. v. Solid State Sys. Corp., 755 F.2d 158, 163, 225 USPQ 34, 38 (Fed. Cir. 1985); see also Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc., 807 F.2d 955, 963, 1 USPQ2d 1196, 1201 (Fed. Cir. 1986) (excusing failure to make express findings as to the level of ordinary skill where there is no showing that the court's failure to make such a finding influenced the ultimate determination).

In this case, Okajima stated during the final hearing that there was no dispute that the level of skill was high. Where the parties agree that the level of skill in the art is high, any finding by the Board that the proper level of skill is less than that urged by the parties would only reinforce the Board's conclusion of nonobviousness. See Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 1574, 230 USPQ 81, 88 (Fed. Cir. 1986) (recognizing that particular findings as to level of skill do not influence the ultimate determination under § 103 where there is a "determination that an invention would have been nonobvious to those ~~of~~ extraordinary skill"). Accordingly, we find no harm under the circumstances of this case in the Board's failure to set forth express findings as to the level of skill.

Okajima also contests the Board's factual finding that a person of ordinary skill in the art would not have been motivated to combine the teachings of DE '503 and US '041 with EP '400. Okajima insists that a highly skilled snowboard boot designer would have learned from EP '400 (and its disclosure of two laterally-disposed journals) that a single journal, as disclosed in DE '503 and US '041, could be offset to a position between the Achilles tendon and the internal malleolus, as claimed by Bourdeau. Moreover, Okajima argues that such an artisan would have been motivated to do so to accommodate the need for the snowboarder's leg to incline both laterally and forwardly. Okajima notes that the Board expressly found to the contrary.

Indeed, the Board concluded that the use of two journals on opposite sides of the boot disclosed in EP '400 would provide adequate "swiveling action longitudinally," but "would appear to hinder or obstruct most lateral movement by the wearer." The Board found no motivation to combine EP '400 with DE '503 and US '041, as it found that the latter references teach the desirability of lateral movement by the wearer, as opposed to forward movement, as disclosed in EP '400.

Okajima's argument is essentially a challenge to the Board's factual determinations. However, we may overturn the Board's factual findings only if they are unsupported by substantial evidence. Gartside, 203 F.3d at 1316, 53 USPQ2d at 1776. Here, the Board has done a thorough job of setting forth the basis for its factual findings in its opinion, which contains a review of the scope and content of the prior art references, a description of the differences between Bourdeau's claimed invention and each of the prior art references, and an analysis of the asserted combinability of the references. The Board specifically found that EP '400 teaches providing a swiveling action longitudinally and slightly forward, but that the use of two opposing journals would obstruct most lateral movement by the wearer. Moreover, the record reflects that the Board explicitly questioned Okajima on this subject during the final hearing. Judge Lee asserted that "in this EP-400 ski boot, when you have the opposite sides all pinned down or journaled-in, then there is no lateral rotation allowed." After an extended colloquy, counsel failed to convince the Board otherwise. By explaining its tentative position during the final hearing, giving counsel an opportunity to challenge the Board's imminent holding, and setting forth its findings in detail in its opinion, the Board has provided our court with a well-supported decision. When it sets forth distinct findings of fact, and particularly when it does so in the manner that a district court must under Fed. R. Civ. P. 52(a), the Board's findings are entitled to broad deference. Gartside, 203 F.3d

at 1316, 53 USPQ2d at 1776. Indeed, such express findings of fact are the key to meaningful appellate review, and obviate the need for us to remand for further proceedings at great cost and inefficiency to the parties. Gechter v. Davidson, 116 F.3d 1454, 1457-58, 43 USPQ2d 1030, 1032-34 (Fed. Cir. 1997). Here, the Board's factual findings are readily sustainable under our deferential standard of review. And we find no legal error in the absence of specific findings as to the level of ordinary skill, nor in the Board's conclusion as to the ultimate determination of nonobviousness.

Conclusion

We conclude that the Board's finding that there was no motivation to combine the cited prior art references as suggested by Okajima is supported by substantial evidence. And, we conclude that it did not constitute reversible error for the Board's opinion to omit specific findings on the level of ordinary skill. Accordingly, the Board's decision that claims 13-24 and 26-28 of Bourdeau's application are not unpatentable for obviousness is

AFFIRMED.

APPENDIX B

Final Decision

U.S. Patent and Trademark Office

Board of Patent Appeals and Interferences

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION and is not binding precedent of the Board

Paper No. 67

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

SHINPEI OKAJIMA

Junior Party (Application 08/665,679),

v.

JOEL BOURDEAU

Senior Party (Application 08/676,928).

Patent Interference No. 104,193

HEARD: August 9, 2000

Before McKELVEY, *Senior Administrative Patent Judge*, and LEE and MEDLEY, *Administrative Patent Judges*.

MEDLEY, *Administrative Patent Judge*.

FINAL DECISION AND JUDGMENT UNDER 37 CFR § 1.658(a)

A. Introduction

A decision on preliminary motions was rendered October 20, 1999. (Paper 43). The decision included an order to show cause why judgment should not be entered against party Okajima.[16] (Paper 43 at 21). In response to the order to show cause, Okajima stated that it would accept judgment against it on the issue of priority. (Paper 45). However, Okajima made a request for final hearing to review the administrative patent judge's decision denying Okajima's preliminary motion 2 for judgment against Bourdeau's claims 13-24 and 26-28 in view of various prior art. (Paper 45).

Party Bourdeau filed a request for final hearing to review the administrative patent judge's decision (1) granting Okajima's

preliminary motion 1 to designate Bourdeau's claims 13-24 and 26 as corresponding to the count; and (2) denying Bourdeau's preliminary motion 2 to designate Okajima's claims 18-20 as corresponding to the count. (Paper 44).

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[16] Bourdeau's unopposed preliminary motion for benefit of its French application 95.08587, filed July 11, 1995 was granted (Paper 43 at 15). In its preliminary statement, Okajima indicates that it shall rely on its filing date of June 18, 1996.

In its principal brief, Bourdeau states that it no longer seeks review of the granting of Okajima's preliminary motion 1. (Paper 49 at 1). In addition to its principal brief, Bourdeau has filed a motion to exclude certain evidence submitted by Okajima. (Paper 52).

A final hearing was held on August 9, 2000.

B. Findings of Fact

1. The interference was declared on April 30, 1998.

2. Okajima is involved on the basis of U.S. application 08/665,679, filed June 18, 1996 .

3. Bourdeau is involved on the basis of U.S. application 08/676,928, filed July 8, 1996.

4. By virtue of a decision of Bourdeau's preliminary motion 1, Bourdeau has been accorded the benefit for the purpose of priority of French application 95.08587, filed July 11, 1995. (Paper 43 at 15).

Okajima's brief

5. Okajima maintains that Bourdeau's claims 13-24 and 26-28 are unpatentable in view of various prior art. (Paper 45 at 1).

6. In its preliminary motion 2 (Paper 13 ½), Okajima moved for judgment against Bourdeau's claims 13-24 and 26-28 based on alternate theories that Bourdeau's claims 13-24 and 26-28 were unpatentable under 35 U.S.C. § 103 over:

a) European Patent Office Publication 356 400 (EP '400), published February 28, 1990 in view of German Offenlegungsschrift DE 3,622,746 (DE '746), published January 21, 1988;

b) German Offenlegungsschrift DE 4,333,503 (DE '503), published April 6, 1995, in view of EP '400 and DE '746; or

c) U.S. patent 5,401,041 (US '041), issued March 28, 1995, in view of EP '400 and DE '746.[17] (Paper 13 ½ at 8-20).

7. Okajima, in its brief, submits that Bourdeau's claims 13-24 and 26-28 are unpatentable under 35 U.S.C. §103 over DE '503 and/or US '041 in view of EP '400 alone or in combination with DE '746, Austrian publication 399 637 B (AT '637), or U.S patent US '622. (Paper 51 at 24).

8. In its brief, Okajima additionally argues that claim 17 is unpatentable under 35 U.S.C. §112. (Paper 51 at 34).

Bourdeau's Motion to Suppress

9. Bourdeau filed a motion to. exclude Okajima's exhibits OX9, OX10, OX11, and OX12. (Paper 52).

10. Okajima's exhibit OX9 is AT '637.

11. Okajima's exhibit OX10 is U.S. Patent 4,779,892 (US '892), issued October 25, 1988.

12. Okajima's exhibit OX11 is U.S. Patent 4,699,396 (US '396), issued October 13, 1987.

13. Okajima's exhibit OX12 is U.S. Patent 4,688,822 (US '822), issued August 25, 1987.

Bourdeau's brief

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[17] Okajima argues that claim 19 is unpatentable based on the third alternative only. (Paper 13 ½ at 13).

Okajima argues that claim 24 is unpatentable based on the three alternatives. However, in the last alternative, Okajima further relies on U.S. patent 3,584,622 (US '622), issued June 15, 1971. (Paper 13 ½ at 16).

Okajima argues that claims 27 and 28 are unpatentable based on the three alternatives, less the DE '746 reference. (Paper 13 ½ at 18-20).

14. Bourdeau maintains that Okajima's claims 18-20 should be designated as corresponding to the count. (Paper 49).

The invention

15. The interfering subject matter relates to a snowboard boot with a leg member and a heel member pivotally attached at a location that is offset from the longitudinal median plane of the boot.

16. The count is identical to Bourdeau's claim 27 and is as follows:

A snowboard boot comprising:

a heel member;

a leg member positioned above the heel member;

wherein the heel member is pivotally attached to the leg member at a pivot location so that the leg member is capable of movement relative to the heel member about an axis of rotation that passes through the pivot location;

wherein the axis of rotation is inclined from rear to front and from top to bottom;

wherein the pivot location is offset from the longitudinal median plane; and

wherein the axis of rotation forms an angle with the longitudinal median plane.

Okajima's claim 18

17. Okajima's independent claim 18, which Bourdeau seeks to designate as corresponding to the count is as follows:

A pair of snowboard boots comprising:

a first snowboard boot including:

a first heel member;

a first leg member positioned above the first heel member;

wherein the first heel member is pivotally attached to the first leg member at a first pivot location so that the first leg member is capable of movement relative to the first heel member about a first axis of rotation that passes through the first pivot location;

wherein the first axis of rotation is vertically inclined no more than +/- 45°;

wherein the first axis of rotation lies within a first plane that is inclined relative to a longitudinal second plane of approximate symmetry which divides left and right sections of the first boot;

wherein the first pivot location is spaced apart from the second plane of approximate symmetry;

a second snowboard boot including:

a second heel member;

a second leg member positioned above the second heel member;

wherein the second heel member is pivotally attached to the second leg member at a second pivot location so that the second leg member is capable of movement relative to the second heel member about a second axis of rotation that passes through the second pivot location;

wherein the second axis of rotation is vertically inclined no more than +/- 45°;

wherein the second axis of rotation lies within a third plane that is inclined relative to a longitudinal fourth plane of approximate symmetry which divides left and right sections of the second boot;

wherein the second pivot location is spaced apart from the fourth plane of approximate symmetry; and

wherein an angle of inclination between the first plane and the second plane of approximate symmetry is greater

than an angle of inclination between the third plane and the fourth plane of approximate symmetry.

18. Okajima's specification defines the term "plane of approximate symmetry" on pages 4-5 and 9 of application 08/665,679.

19. The "plane of approximate symmetry" is defined on pages 4-5 of Okajima's specification as follows:

...when the shoe is placed on a horizontal plane, the heel section is approximately symmetrical with respect to a vertical longitudinal plane which contains a line in the longitudinal direction. This approximately symmetrical plane is referred to herein as the 'plane of approximate symmetry.'

20. The "plane of approximate symmetry" is defined on page 9 of Okajima's specification as follows:

When the boots are fixed to the snowboard, the plane of approximate symmetry of each snowboard boot can be defined as follows. When the insides of both feet are placed together so as to touch lightly at two points while standing erect, the plane of approximate symmetry is the vertical plane that is parallel to the plane containing these two points, and that contains the back end point of the heel section, which has an approximately spherical surface shape.

The prior art

21. DE '503 (Okajima exhibit OX2) describes a snowboard boot with a heel member 13 and a leg member 16 pivotally connected by 18 at the rear of the boot.

22. The pivot location appears to be along the line of the longitudinal median plane of the boot and not offset from the longitudinal median plane.

23. US '041 (Okajima exhibit OX3) describes a snowboard boot with a heel member 16 and a leg member 28 pivotally connected by 34 at the rear of the boot.

24. The pivot location is along the line of the longitudinal median plane of the boot and not offset from the longitudinal median plane.

25. EP '400 (Okajima exhibit OX1) describes a ski boot with a heel member 19 and a leg member 10 pivotally connected at two locations 13 and 15 on either side of the boot.

26. The two pivot locations 13 and 15 are offset from the longitudinal median plane of the boot.

27. DE '746 (Okajima exhibit OX4) describes a binding for a mono-ski with a heel member 3 and a leg member 2 pivotally connected by 8 at the rear of the binding.

28. The pivot location is along the line of the longitudinal median plane of the binding and not offset from the longitudinal median plane.

29. AT '637 (Okajima exhibit OX9) describes a snowboard shoe with a heel member 1 and a leg member M and a sole 2, whose sole is varied between low hardness 4, 5c and high hardness 5, 6 so that the leg of a wearer of the snowboard shoe is capable of tilting forward and inward.

30. US '622 (Okajima exhibit OX5) describes a support device for prevention of ankle injuries.

C. Discussion

Standard of Review

Although the substantive issues before us were raised in preliminary motions which were decided by a single judge in a Decision on Preliminary Motions (Paper 43), those decisions are not entitled to deference by this three judge panel. *See* § 1.655(a) as amended effective March 16, 1999, which provides that "[t]he abuse of discretion standard shall apply only to procedural matters." *Consideration of*

Interlocutory Rulings at Final Hearing in Interference Proceedings, 64 Fed. Reg. 12900, 12901 (March 16, 1999) .

Bourdeau's Brief

Bourdeau maintains that Okajima's claims 18-20 should be designated as corresponding to the count. Okajima claim 18 is an independent claim. Okajima claim 19 depends on claim 18. Okajima claim 20 depends on claim 19.

At the heart of the issue is how the term "plane of approximate symmetry" should be interpreted with respect to Okajima's claim 18. Okajima's claim 18 recites "[a] pair of snowboard boots." Okajima's specification defines the term "plane of approximate symmetry" in two locations, pages 4-5 and 9. The first definition is directed to a single boot. (Finding 19). The second definition is directed to a pair of boots. (Finding 20). The first and second definitions are different. The plane of approximate symmetry will be different depending on which definition applies.

Bourdeau contends, and it is not disputed, that the first definition of the "plane of approximate symmetry" is the same as the "longitudinal median plane" recited in Bourdeau's claim 27 (the count). (Paper 49 at 7). Bourdeau does not suggest that Okajima's second definition of the "plane of approximate symmetry" is the same as the "longitudinal median plane" of Bourdeau claim 27 (the count). Rather, Bourdeau argues that the second definition of the "plane of approximate symmetry" will be consistent with the first definition where the widths of the front and rear portions of each of a pair of boots are the same, as allegedly shown in Okajima's figures. Okajima's claims 18-20 should be interpreted such that the widths of the front and rear of a boot are the same, Bourdeau argues, in order for the term "plane of approximate symmetry" to be given the same meaning throughout all of Okajima's claims as required by law, citing to Georgia-Pacific Corp. v. United States Gypsum

Co., 195 F.3d 1322, 1331, 52 USPQ2d 1590, 1598 (Fed. Cir. 1999); Southwall Technologies, Inc. v. Cardinal IG Co., 54 F.3d 1570, 1579, 34 USPQ2d 1673, 1679 (Fed. Cir. 1995); Fonar Corp. v. Johnson & Johnson, 821 F.2d 627, 632, 3 USPQ2d 1109, 1113 (Fed. Cir. 1987), cert. denied, 484 U.S. 1027 (1988). (Paper 49 at 7-9).

Bourdeau's arguments are not persuasive. First, while we agree that generally a claim term cannot be given a different meaning in the various claims of the same patent, there are exceptions to this rule of law. In none of the cited cases are the facts similar to those before us. Here, there are two definitions for a given term. Here, one definition applies to claims reciting a single boot and the other definition applies to claims reciting a pair of boots.

In Georgia-Pacific, the Federal Circuit held that it was an error to interpret a claim term to have one meaning with respect to one set of claims and a different meaning with respect to another set of claims. The Federal Circuit held that a claim term cannot be given a different meaning in the various claims of the same patent "absent any indication that a different meaning was contemplated." 195 F.3d at 1331, 52 USPQ2d at 1598. In Georgia-Pacific, the disputed term was not defined in the specification. Here, the disputed term is not only defined in Okajima's specification, but defined in two ways, indicating that different meanings had been contemplated depending on the context on which the term is used.

In Southwall, the issue was whether the remarks made as part of the prosecution history applied to all of the claims with the disputed term, even though a particular claim was not mentioned during prosecution history. The Federal Circuit held that "arguments made during prosecution regarding the meaning of a claim term are relevant to the interpretation of that term in every claim of the patent absent a clear indication to the contrary." 54 F.3d at 1579, 34 USPQ2d at 1679. In Southwall, the Federal Circuit found

that the prosecution history discussing the disputed term was applicable for determining the meaning of the term in all of the claims. In Southwall, there was not, as there is here, two definitions in the specification for the disputed term. Unlike in Southwall, here the prosecution history tends to show that the "plane of approximate symmetry" has a different meaning for Okajima's claims 18-20. Note Okajima's argument that the term "plane of approximate symmetry" has a different meaning for its claims 18-20. (Paper 55 at 3-5).

Likewise, in Fonar Corp., the disputed term did not have more than one definition in the specification. Nor was there prosecution history tending to show that the disputed term should be interpreted inconsistently from other claims using the same term, as there is here. Thus, the facts before us are distinguishable from the facts in the above cited cases.

Bourdeau asserts that Okajima's Figs. 1-7, 10 and 12 show boots where the "plane of approximate symmetry" is the same as the longitudinal plane. (Paper 49 at 8). But only Fig. 10 of Figs. 1-7, 10 and 12 shows a pair of boots.[18] The rest of Okajima's figures show a single boot. The figures showing a single boot are consistent with the first Okajima definition of "plane of approximate symmetry," where the "plane of approximate symmetry" is the same as the longitudinal median plane of Bourdeau claim 27 (the count). While Fig. 10 does appear to show a pair of boots where each boot has a plane of approximate symmetry which is the same as the longitudinal median plane, the figure is a mere abstract representation for illustrating the Okajima page 9 definition of the "plane of approximate symmetry," as further discussed below.

Okajima's Fig. 10 shows two ellipses representing a pair of boots. There is nothing in Okajima's specification to

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[18] Okajima Fig. 11 is the only other figure that shows a pair of boots. There, the plane of approximate symmetry is not illustrated.

indicate that the ellipses are actual designs of snowboard boots, where the front and rear widths of the boots are the same. Bourdeau has not sufficiently explained, or established, why one of ordinary skill in the art would not view the ellipses of Okajima's Fig. 10 as an illustration for how the "plane of approximate symmetry" is determined. The illustration of Fig. 10 would be similar to the situation where the snowboard boots were represented by two rectangles. Such a figure would not convey that the snowboard boots are actually in the shape of rectangles. Rather, we believe that one of ordinary skill in the art would interpret such a drawing to be illustrative of the concept to be conveyed, e.g. how to determine the "plane of approximate symmetry" for each of a pair of boots. For the foregoing reasons, we are unpersuaded by Bourdeau's argument that when interpreted in light of Okajima's figures and specification, the term "plane of approximate symmetry" as it applies to Okajima's claim 18 is the same as the "longitudinal median plane" of Bourdeau claim 27 (the count).

Bourdeau additionally argues that even if the second definition is interpreted inconsistently with the first definition for the term "plane of approximate symmetry," Okajima's claim 18, when broadly construed, would cover snowboard boots with planes of approximate symmetry that are the same as the longitudinal median plane. (Paper 49 at 8). This does not mean however, that the subject matter of Okajima's claims 18-20 would have been obvious given the subject matter of Bourdeau's claim 27 as prior art. Even though Okajima's claim 18 may "cover" snowboard boots whose front and rear widths are the same, [that] does not mean that one having ordinary skill in the art knew of such snowboard boots or that such snowboard boots existed. Further, the fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a prima facie case of obviousness. In re Baird, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994). Claim 27 does not

recite the shape of a boot either, and Bourdeau has failed to direct us to sufficient and credible evidence which show that one of ordinary skill in the art knew of snowboard boots whose rear and front widths are equal. The fact that the prior art may be modified in the manner suggested does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 12666 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992).

Bourdeau argues in its reply that:

even if the Board does not find the two planes to be the same as a matter of law, the two planes are nevertheless practically the same. Both planes pass through the center of the heel and are used simply as a reference point. (Paper 56, Introduction at 1).

The above quoted remark is found under the heading "Introduction" which precedes the section entitled "Reply to the Specific Points Raised By Okajima." (Paper 56 at 1-2). The rule regarding a reply states that a "reply shall be directed only to new points raised in the opposition." 37 CFR § 1.638(b). The above quoted argument was not in response to new points raised in Okajima's opposition.

Bourdeau reiterated this new argument at final hearing. What we understand Bourdeau's new argument to be is that even if the "plane of approximate symmetry" and the "longitudinal median plane" have different meanings, both planes pass through the center of the heel, and as a practical matter, if a pivot is offset from one plane it is also offset from the other plane, and that the exact location of the offset of the pivot would be a matter of routine optimization and obvious to one with ordinary skill.

The problem with Bourdeau's new argument made in its reply and at final hearing is that Okajima had no meaningful opportunity to present evidence to respond to the new argument. Okajima might have demonstrated that an offset from one reference plane does not equate to an offset from

the other reference plane, or that an optimized angle from one reference plane may not be an optimized angle with respect to the other reference plane. The new argument was not raised in Bourdeau's original motion or in Bourdeau's principal brief. Since Okajima has had no meaningful opportunity to rebut the newly presented argument made by Bourdeau in its reply brief and at final hearing, we decline to consider the argument on its merits or to express any views as to its soundness.

For the foregoing reasons, Bourdeau has failed to demonstrate that Bourdeau's preliminary motion 2 to designate Okajima's claims 18-20 as corresponding to the count was improperly denied.

Okajima's Brief

Okajima maintains that Bourdeau's claims 13-24 and 26-28 are unpatentable under 35 U.S.C. §103 over DE '503 and/or US '041 in view of EP '400 alone or in combination with DE '746, AT '637 or US '622. (Paper 51 at 24).

At the outset, we note that Bourdeau in its opposition argues that the combination of references Okajima relies upon to demonstrate that Bourdeau's claims are unpatentable is different than the combination of references relied upon in Okajima's preliminary motion 2. (Paper 53 at 16-17). Bourdeau argues that the Board should not consider the new arguments because a "party shall not be entitled to raise for consideration at final hearing any matter which properly could have been raised by a motion..." 37 CFR § 1.655(b). (Paper 53 at 17).

We agree that the references Okajima relied upon in its preliminary motion 2 have been applied differently in its brief.

(Findings 6 and 7). The new rationale should not be considered. Alternatively, we have considered the merits of

Okajima's new rationale and find that in any event Okajima has failed to prove a prima facie case of obviousness.

Bourdeau claims 13, 27 and 28 are independent claims. Bourdeau claims 14-24 and 26 depend either directly or indirectly on claim 13. Bourdeau claim 13 requires that the journal attachment be positioned on a medial side of the boot, along a journal axis forming an angle of between 20° and 40° with respect to the longitudinal median plane of the boot. Bourdeau claims 27 and 28 require that the heel member (claim 28 - rear portion) and leg member (claim 28 - rigid back portion) of the boot be pivotally attached at a pivot location that is offset from the longitudinal median plane.

Okajima argues that DE '503 and/or US '041 teach the features of Bourdeau's claims 13, 27 and 28 with the exception of the pivot being offset from the longitudinal median plane. (Paper 51 at 30-31). Okajima relies on EP '400 to teach the claimed pivot location. Okajima argues that the motivation to combine DE '503 and/or US '041 with DP (*sic, EP*) '400 may be found in AT '637 and DE '746. (Paper 51 at 31-33).

We disagree that there is a suggestion or teaching in the prior art of record to make the modification to either the DE '503 or US '041 snowboard boot such as to offset the journal from the longitudinal median plane of the boot as claimed in Bourdeau claims 13, 27 and 28. EP '400 describes a ski boot with two journals 13 and 15 located on opposite sides of a ski boot. (Findings 25 and 26). The journals are offset from each other to provide a swiveling action longitudinally and slightly inwardly. While the location of the journals allow for a slightly inward bend of the wearers lower leg (Fig. 1(d)), the journals 13 and 15 on opposite sides of the boot would appear to hinder or obstruct most lateral movement by the wearer. In contrast, DE '503 and US '041 teach snowboard boots where substantial lateral movement by the wearer is not only possible but desirable. Why then would one of ordinary

skill in the art look to EP '400 to arrive at the claimed invention? Okajima has failed to provide a sufficient reason.

Likewise, AT '637 would not have reasonably suggested modifying either DE '503, US '041 and/or EP '400. AT '637 describes a snowboard shoe whose sole has varying stiffness. The design of the shoe sole allows downward and inward motion of the wearers lower leg. Although AT '637 does suggest a solution to the problem, e.g. a design that allows a wearer's leg to bend downward and forward, the solution is different than the claimed pivot located offset from the longitudinal median plane of the boot. Similarly, while DE '746 shows a binding design that allows the wearer's lower leg to bend downwardly and inwardly, the pivot location of the binding is located along the longitudinal plane and is not offset therefrom. The teachings of DE '746 do not make up for the lack of suggestion from any of the aforementioned references to motivate one of ordinary skill in the art to modify either US '041 and/or DE '503 and/or EP '400 as is proposed by Okajima. Lastly, US '622 describes an ankle brace for preventing injury to the wearer's ankle. US '622 appears to have little, if any relevance to the claimed subject matter.

We find that Okajima's suggestion that one skilled in the art would have been motivated to modify the DE '503 and/or US '041 boot in view of EP '400, DE '746, AT '637 and/or US '622 to arrive at the claimed invention can only be made with the benefit of knowledge found in Bourdeau's disclosure. It is improper to rely on Bourdeau's own disclosure as motivation for combining the prior art. *See* W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983) ("To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher."); In re

McLaughlin, 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971) (obviousness judgments are necessarily based on hindsight; so long as judgment takes into account only knowledge known in the art, there is no error.) .

Lastly, we note that Okajima argues that Bourdeau claim 17 is unpatentable under 35 U.S.C. §112, since Bourdeau claim 17 is a duplicate of Bourdeau claim 14. (Paper 51 at 34). In response, Bourdeau states that it will cancel claim 17. (Paper 53 at 21). We construe that response as an agreement that claim 17 is a duplicate and thus is unpatentable. Therefore, we grant Okajima's motion for judgment against Bourdeau's claim 17.

For the foregoing reasons, Okajima's motion for judgement (*sic*) against Bourdeau's claim 17 as being unpatentable is granted. Okajima's motion for judgment against Bourdeau's claims 13-16, 18-24 and 26-28 as being unpatentable is denied.

Bourdeau's Motion to Exclude Evidence

Bourdeau moves to suppress Okajima's exhibits OX9-OX12. Okajima does not rely on its exhibits OX10-OX12 to support its argument that Bourdeau's claims 13-24 and 26-28 are unpatentable. Rather, Okajima's exhibits OX10-OX12 are relied upon in its discussion of why Bourdeau's claims 13-24 and 28 properly correspond to the count. Whether Bourdeau's claims 13-24 and 28 should correspond to the count is not an issue before us and therefore we need not consider whether Okajima's exhibits OX10-OX12 should be suppressed.

Further, we find it unnecessary to consider the specific objections to the admissibility of Okajima's exhibit OX9, since Okajima has failed to make a prima facie case of obviousness against Bourdeau's claims even assuming OX9 to be admissible.

Accordingly, Bourdeau's motion to suppress is dismissed as moot.

D. Judgment

Upon consideration of the record, it is

ORDERED that judgment on priority as to Count 1, the sole count in the interference, is awarded against junior party SHINPEI OKAJIMA.

FURTHER ORDERED that junior party SHINPEI OKAJIMA is not entitled to a patent containing claims 1-4, 6-11 and 21 of US application 08/665,679, filed June 18, 1996, which correspond to count 1.

FURTHER ORDERED that judgment is entered against BOURDEAU with respect to its claim 17.

FURTHER ORDERED that BOURDEAU is not entitled to a patent containing claim 17 of US application 08/676,928, filed July 8, 1996, which corresponds to count 1.

FURTHER ORDERED that if there is any settlement agreement which has not been filed, attention is directed to 35 U.S.C. §135(c) and 37 CFR § 1.661.

/s/ Fred E. McKelvey
FRED E. McKELVEY,
Senior Administrative Patent Judge

/s/ Jameson Lee
JAMESON LEE
Administrative Patent Judge

/s/ Sally C. Medley
SALLY C. MEDLEY
Administrative Patent Judge

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APPENDIX C

Order Denying Petition for Panel Rehearing
and Rehearing *En Banc*

UNITED STATES COURT OF APPEALS FOR THE
FEDERAL CIRCUIT

01-1090
(Interference no. 104,193)

SHINPEI OKAJIMA,

Appellant,

v.

JOEL BOURDEAU,

Appellee.

ORDER

United States Court of Appeals for the Federal Circuit

ORDER

A combined petition for panel rehearing and for rehearing en banc having been filed by the APPELLANT, and the petition for rehearing having been referred to the panel that heard the appeal, and thereafter the petition for rehearing en banc having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for panel rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the petition for rehearing en banc be, and the same hereby is, DENIED.

The mandate of the court will issue on September 24, 2001.

FOR THE COURT,
/s/ Jan Horbaly
JAN HORBALY
Clerk

Dated: September 17, 2001

cc: James A. Deland
Michael J. Fink

OKAJIMA V BOURDEAU, 01-1090
(PTO – 104,193)
Note: Pursuant to Fed. Cir. R. 47.6, this order is not citable as precedent. It is a public record.

APPENDIX D

Excerpts from Bourdeau U.S. Patent Application
No. 08/676,928 (As Amended)

SNOWBOARD BOOT INCLUDING AN INTERNAL SHELL AND A JOURNALLED RIGID BACK PORTION

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention related to a snowboard boot, especially of the flexible type particularly adapted for practicing sports such as the "free ride" or "free style."

2. Background and Material Information

Currently, flexible-type boots are essentially designed as mere upwardly extending, impervious and comfortable shoes, but having no actual role in the transmission of forces.

They must be adapted to retaining devices shaped like an open shell having an upwardly extending rear element and a sufficient number of straps to ensure the tightening of the boot to the device. The rear element must be rigid to ensure the rearward support in the so-called "back side" turns. These assemblies have numerous disadvantages. They are very cumbersome due to the straps and upwardly extending rear support. The straps must be readjusted upon each re-engagement of the shoe in the shell after each climb. The tightening of the straps must be sufficient to retain the boot on the board, which often causes painful constriction spots for the foot in view of the flexibility of the upper. Finally, these shells poorly transmit the bending stresses in all directions, including in rear support, due to an often imprecise adaptation of the rear element to the boot.

The snowboarder who practices the new forms of sport is lead to take support and adopt a substantially prone forward or rearward posture on the board. He must then strongly bend one of his legs inwardly, in the direction along which a

knee is brought closer to the board. The other leg is also subject to a less substantial outward lateral inclination. To facilitate the inward bending of the leg, while maintaining a certain balance, the snowboarder can fold the knee, which generates a rear-to-front bending of the lower the leg.

The document EP-A1-646334 relates to a snowboard boot that includes a flexible inner portion in the form of a shoe, an outer portion also in the form of a shoe, with a flexible upper and a rigid insert arranged between these two portions, a rigid back portion that surrounds the calf being journalled on such insert, at the level of the joint of the foot and of the lower leg, along an axis passing through the longitudinal plane of the shoe.

This shoe has the advantage of making it easy to take the "back side" turns in a very efficient manner due to the rigid back portion inserted directly in the shoe while maintaining a certain lateral looseness, regardless of the interior or medial or exterior or lateral side, to enable the snowboarder to adopt more or less bent positions of the legs. The shoe also maintains the comfort of a flexible-type boot by means of an internal liner and of an external flexible upper. This comfort is particularly appreciated during the use of the shoe for walking. But such a shoe still uses a "shell"-type binding with tightening straps whose disadvantages have been cited hereinabove.

In addition, the shoe according to this invention also have disadvantages that are important factors of dissatisfaction and limit the use thereof. In particular, in view of the position of the journal axis in the median longitudinal plane, only the lateral bending of the leg is actually taken into account. The component of natural forward bending of the lower leg is not particularly favored in view of the rigidity of the insert.

The joint where all the forces and stresses are concentrated is located along the Achilles tendon, which creates a painful spot that is very prejudicial to the comfort of the shoe. The tendon is all the more biased when the

snowboarder is in rear support, because the lower portion of the rigid back portion exerts a pressure on the shell toward the interior of the heel under the joint by the effect of the lever.

The problem of comfort generated is increased by the choice of an internal construction of the insert and of the rigid back portion in the immediate vicinity of the foot.

Furthermore, the solution according to the application No. EP-A1-646334 does not provide the necessary external lateral support when the surfer is in the position to rebound his board or in the skating phase, when one of his feet is separated from his board.

SUMMARY OF THE INVENTION

The present invention aims at providing a particularly satisfactory solution to all of the problems encountered with the previously mentioned prior art solutions. In particular, the invention aims at proposing a boot of the flexible type that maintains its qualities of comfort in any conditions of use, while ensuring the transmission of the forces that are essential to a good control and mastery of the board in the forms of sport involved.

Another object of the invention is to propose a boot which really takes into account the natural movements of internal and external bending of each leg through an appropriate asymmetrical solution.

Another object of the invention is to propose a boot that integrates the essential tightening means by thus separating the tightening function and the retaining function on the board, so as to avoid the disadvantages of the conventional shell systems.

To this end, the invention related to a snowboard boot including a sole adapted to be attached to the board, a relatively flexible upper, mainly forming the outer portion of the boot and connected to the sole, a rigid shell at least partially covering the sole and extending upwardly at the rear of the boot, in the heel area, and a rigid back portion

journalled on the shell and extending it upwardly. The rigid back portion is journalled on the inner side of the boot, along a journal axis forming an angle of inclination comprised between 20 and 45° with respect to the median longitudinal plane of the boot.

Thus localized, the joint is morphologically located in a recessed area between the internal malleolus and the Achilles tendon. During rear supports, the back portion can become deformed inwardly without creating any pain.

A more reduced range can be conceived to address the most commonly encountered situations, as a function of the position of the feet on the board. Thus the angle of inclination of the journal axis is comprised between 25 and 35°, preferably close to 30°, with respect to the median longitudinal plane.

According to another characteristic, the journal axis is oriented from rear-to-front and from top to bottom, thus taking into account the slightly inclined forward position of the leg, at rest, on the board.

Other complementary characteristics participate in improving the retention and tightening of the foot within the boot. Thus, the shell can include lateral edges that extend upwardly and are adapted to bind the foot on each side, from a base that covers the sole at least partially. Likewise, the boot can include a strap for tightening the instep that connects each lateral edge of the shell.

The direct linkage of the strap on the shell enables a more efficient tightening while preserving the comfort of the foot.

* * * *

What is Claimed:

* * * *

13. A snowboard boot comprising:

a sole having a structure adapted for being affixed to a snowboard;

an upper connected to said sole, said upper comprising at least one flexible material, said upper having a portion forming an outer surface of the boot;

a shell at least partially covering said sole, said shell having a front portion and a rear portion, said rear portion extending upwardly at a heel area of the boot, said shell being made of a rigid material;

a back portion comprising a rigid material, said back portion extending upwardly from said rear portion of said shell; and

a journal attachment journaling said back portion to said rear portion of said shell, said journal attachment being positioned on a medial side of the boot, along a journal axis forming an angle of between 20° and 45° with respect to a longitudinal median plane of the boot.

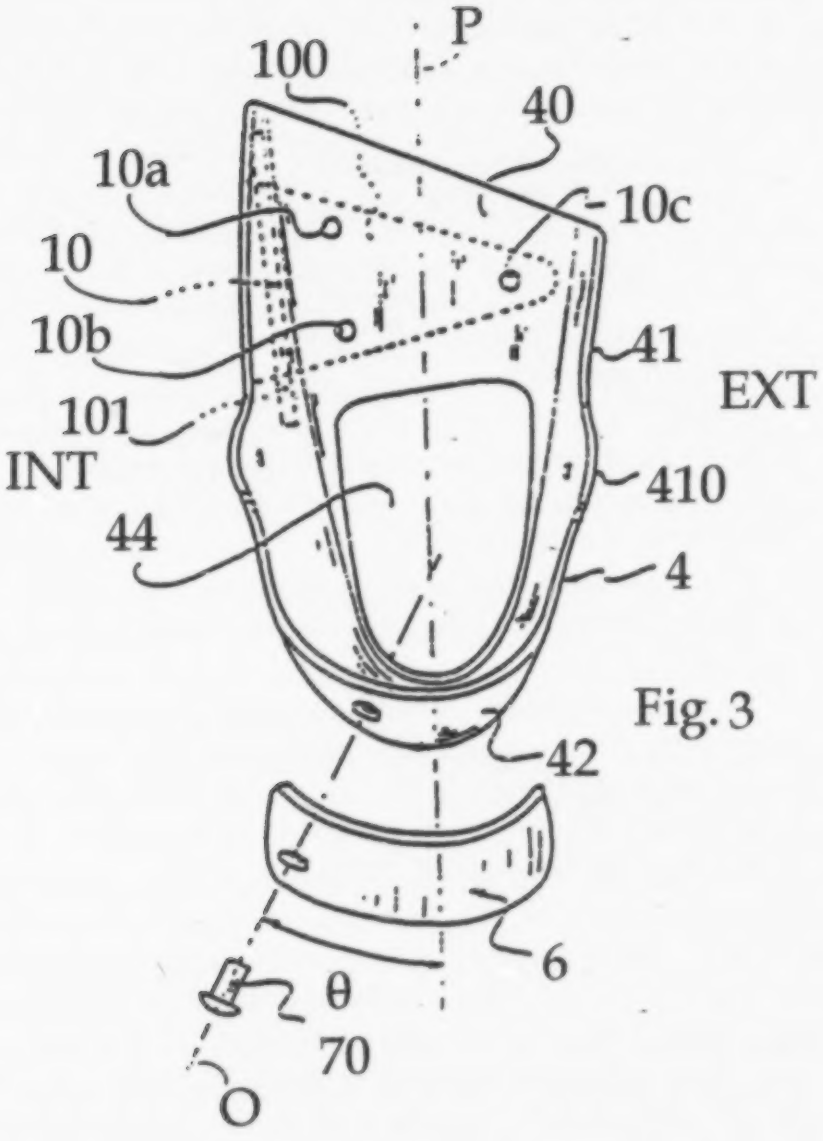


Fig. 3

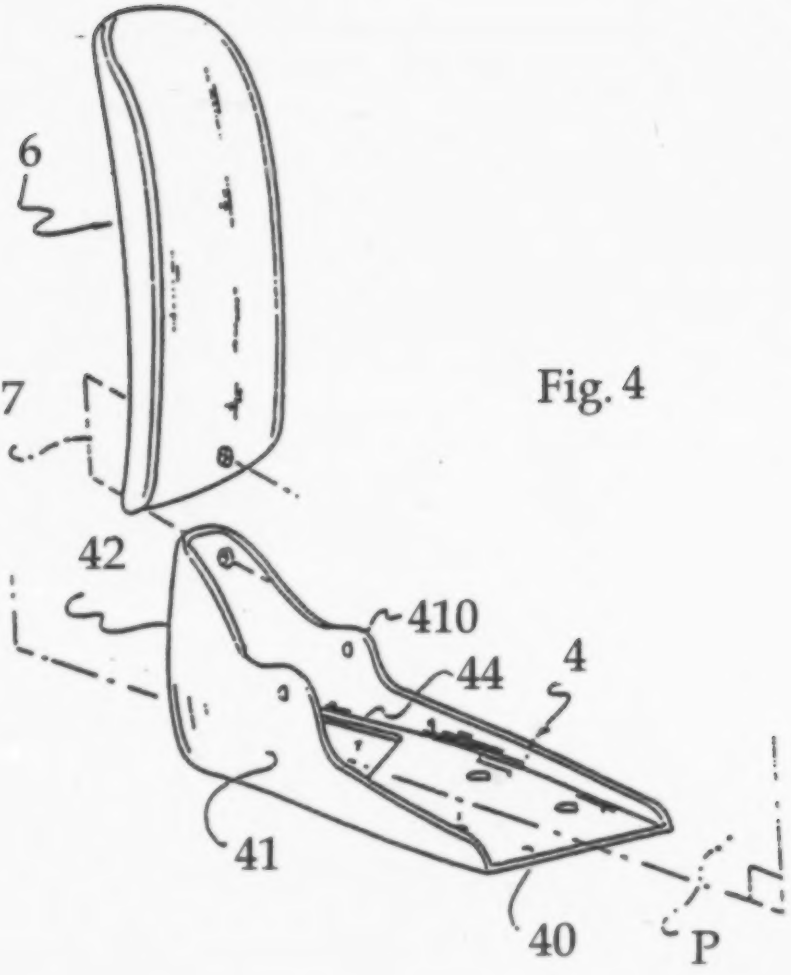


Fig. 4

APPENDIX E

Excerpts From German Patent Publication
No. DE 43 33 503 A1

Fig. 1

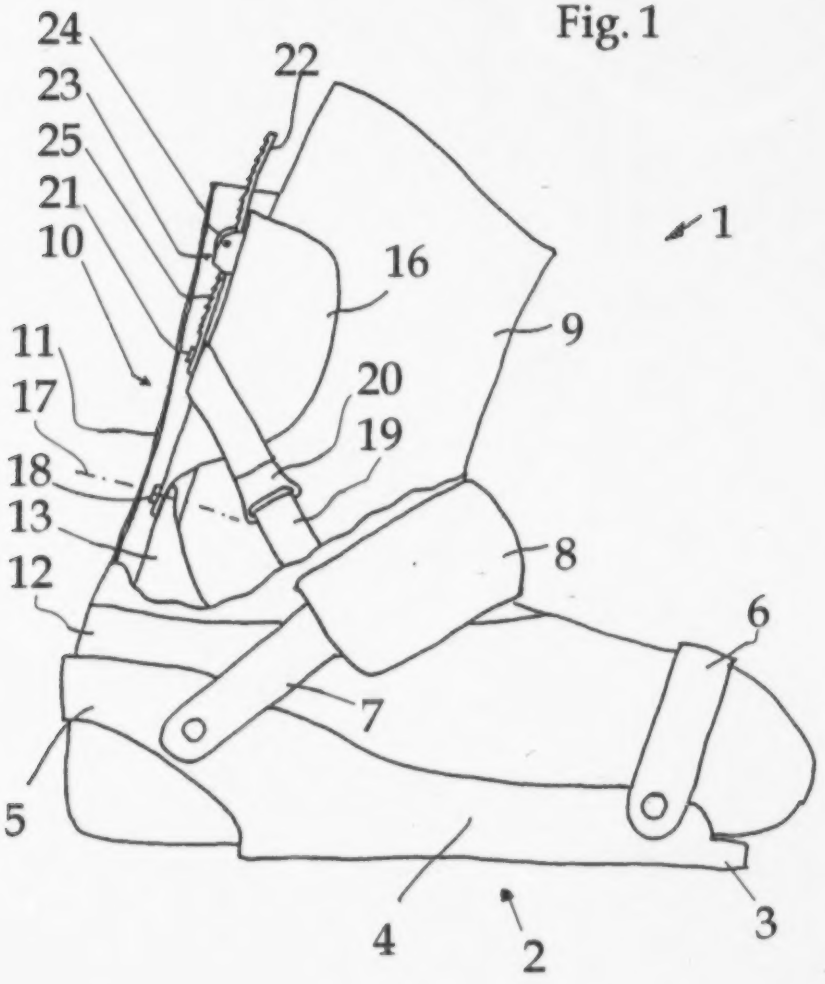
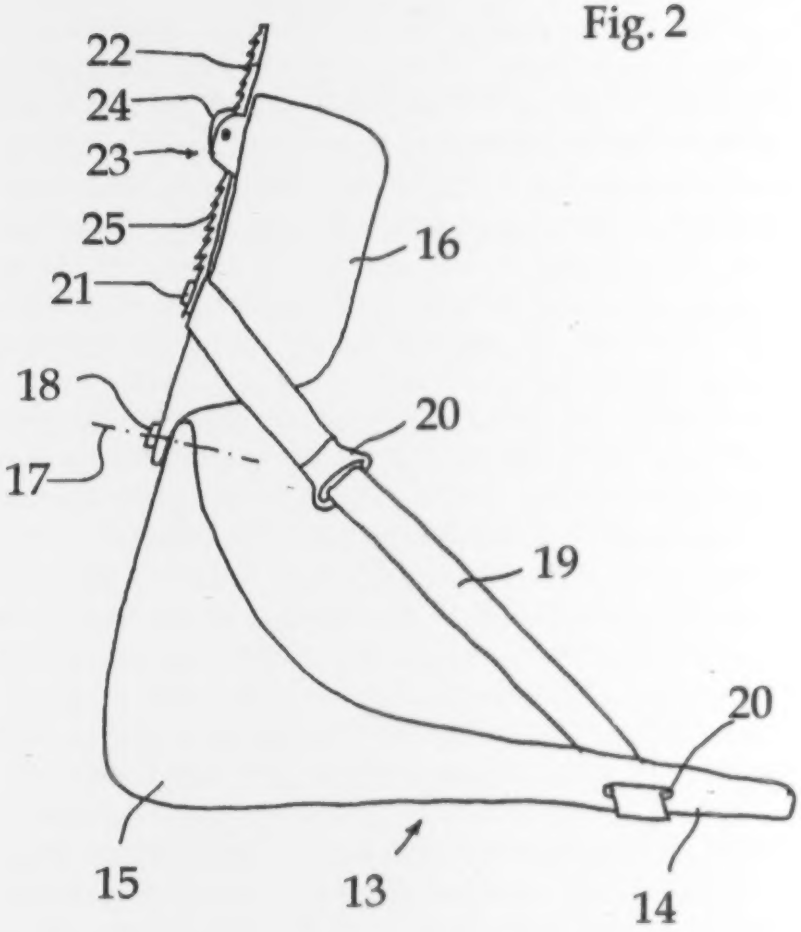


Fig. 2



APPENDIX F

Excerpts from European Patent Publication
No. EP 356,400 A2

TRANSLATION FROM GERMAN

European Patent Office
Publication number: 0 356 400 A2
EUROPEAN PATENT APPLICATION

* * * *

Sports shoe

An upper part (10) is connected, in a way which permits swiveling, to a lower part (9) by means of outer joint devices (12) and inner joint devices (14). A line (e), which connects the joint devices, forms an angle α) with a line (b), which is vertical to the longitudinal axis (a') of the shoe, whereby the outer joint devices (12) are arranged in such a way that they are displaced toward the toe cap of the shoe and the inner joint devices (14) are arranged in such a way that they are displaced toward the heel of the shoe. As a result of this arrangement of the joint devices, the upper part (10) is capable of being inclined relative to the lower part (9), namely obliquely toward the front and inward in the direction of the line (d). The knee of the wearer is moved in the same direction (d) when he changes his forward leaning stance. In this case, when using the sports shoe (5) in accordance with the invention, edging over of the sole does not take place and pressure points do not form on the inside of the lower leg of the wearer via the upper part of the shoe (10).

* * * *

Specification

Sports shoe

The present invention pertains to a sports shoe in accordance with the preamble of patent claim 1.

Sports shoes, especially ski boots, which are obtainable on the market today and which are used in alpine ski sports, usually have a high shaft or upper part which extends approximately into the middle region of the lower leg, whereby the shaft or upper part is connected, in a jointed or hinged manner, to a lower part which encloses the foot and is capable of being swiveled or inclined in the direction of the longitudinal axis of the boot. The lower part of the ski boot is detachably connected, via its specially constructed sole, to the ski by means of binding. The binding has the task of ensuring the rigid connection of the ski boot to the ski as long as forces, which act on the binding, do not exceed certain limiting values. As result of the designated ability to swivel, it is made possible for the skier to adapt his posture to his mode of skiing by adopting more or less of a forward leaning stance. For ultimum control of the ski, it is important that the boot be adapted to fit snugly with the foot and lower leg of the skier without producing pressure points. In order to achieve this adaptation, currently conventional ski boots have an outer boot which essentially comprises a sole, the designated lower part and the designated upper part, whereby an inner boot is arranged in the interior of the outer boot and whereby the inner boot is, for example, adaptable to the foot of the wearer in question by means of foam, inflation or other means. Nowadays, the designated parts of the outer boot are preferably manufactured from shell-shaped pressed plastic components. In order to put on and take off the boot with ease, fastening devices are present in the most diverse variations with which the outer boot is capable of being expanded or hinged and is then closable again.

The designated ability to incline the upper part in relation to the lower part of the ski boot is usually achieved by arranging for the upper part to overlap the lower part to a certain extent, whereby joint devices are arranged both on the outside and on the inside of the ski-boot in this overlapping region. A line, which connects the designated joint devices,

thereby runs perpendicular to and across the longitudinal axis of the boot.

Anatomical studies and experiments have shown - assuming that the feet of the skier are held parallel - that the knees move to the front and inward when adopting a forward leaning stance. With the aforementioned ski boots, which have the possibility of movement only in the longitudinal direction of the boot, pressure points arise as result either on the inside of the lower leg or the outer edges of the ski are stressed. Optimum control of the ski, especially optimum gliding, is therefore not possible.

Similar thoughts have already been disclosed in Swiss patent specification 529 526. [Here], one has started out from the fact that the inner ankle bone and the outer ankle bone of a human foot are not positioned symmetrically relative to the longitudinal axis of the foot but, rather, a line, which is imagined to be perpendicular to a line which connects the two ankle bones, forms an angle of approximately 20 relative to the longitudinal axis of the foot. It has erroneously been assumed in this connection that the knees move obliquely forward and outward at the designated angle when bending the lower leg forward and maintaining the mutually parallel position of the feet. The designated patent specification therefore proposes a ski boot whose upper part is movable, relative to the lower part, in a forward inclined and laterally swivelled position, especially one pointing to the outside. As result, however, the designated disadvantages - i.e. either pressure points which arise on the inside of the lower leg or stressing of the outer edges of the ski become more intense.

The problem for the present invention is to create a ski boot which takes account of the anatomical movements of the lower leg of humans relative to the foot when bending forward as mentioned above and whereby the boot does not exhibit the designated disadvantages.

This problem is solved in accordance with the characterizing features which are designated in the characterizing part of patent claim 1.

An example of an embodiment of a ski boot in accordance with the invention is described in more detail below on the basis of drawings. The following aspects are shown.

In order to explain the movement relationships, Figure 1 shows a schematic plan view of a human foot with a lower leg in sectional form;

Figures 2 and 3 respectively show a view of the inside and a plan view of a right ski boot in accordance with the invention, whereby each illustrates the arrangement of the joint devices; and

Figure 4 shows the possible construction of a joint device with a swivel axis which is capable of being displaced.

A schematic plan view of a right human foot 1 is illustrated in Figure 1. The lower leg 2, which is illustrated in sectional form, is located in the rear region of the foot between the inner ankle bone 3 and the outer ankle bone 4. A line, which connects the inner ankle bone 3 to the outer ankle bone 4, is designated by c. The known fact that the inner ankle bone 3 is located closer to the toes of the foot than the outer ankle bone 4 is readily visible from Figure 1. On bending the lower leg 2 forward in the direction of the toes of the foot, one is inclined to assume that the designated line c, which connects the two ankle bones 3, 4, forms the swivel axis and that the knee moves obliquely forward and outward. However, on the assumption that the foot 1 is left immovably in its normal position which points straight forward, one finds that, when bending the lower leg 2 forward, the knee moves obliquely inward in the way in which this is indicated by the line d in Figure 1. This encloses an angle α with the longitudinal axis a of the foot, whereby this angle amounts to approximately 3 to 4. The line e, which runs through the inner ankle bone 3 and which is vertical to the line d and intersects. the longitudinal axis a of the foot at point A,

thereby forms the swivel axis. This is also rotated by the angle α relative to a further line b which is arranged vertically to the longitudinal axis a of the foot. In ski boots, which form part of the prior art, the joints which connect the shaft or upper part of the ski boot to the lower part either lie on the line b or, in the form in which this is indicated in the patent specification, that was mentioned at the beginning, they lie on the line c which connects the two ankle bones.

A ski boot in accordance with the invention which is illustrated in an example of an embodiment in Figures 2 and 3 takes account of the actual direction of movement of the lower leg (line d) by way of the feature that the connecting joints of the two parts of the boot are arranged to lie on the line (e).

Figure 2 shows a lateral view of the ski boot 5 in accordance with the invention. The right ski boot is shown with its inner side 7. The lower part (9), which is intended for enclosing the foot of the person who is wearing the ski boot, has a sole 8 which is intended for connection to the ski which is not shown. A shaft or upper part 10 encloses the lower leg of the person who is wearing the shoe and, in terms of its height, extends approximately as far as the middle region of the lower leg. In order to provide convenient putting on and taking off of the ski boot 5, fastening devices 11 are provided which, in the opened state, permit widening out or hinging apart of the upper part 10 and/or the lower part 9 of the ski boot 5. A region of the upper part 10, which is turned toward the lower part 9, overlaps a region of the lower part 9 which is turned toward the upper part 10; in the overlapping region, joint devices 14 are arranged on the inside 7 of the ski boot; joint devices 12 are also arranged on the outside 6 of the ski boot in the overlapping region. The designated joint devices are designed to permit the upper part 10 to be inclined relative to the lower part 9, i.e. essentially in the longitudinal direction of the boot. In analogy to that which was said in regard to Figure 1, the joint devices are not arranged parallel

to the line b, which is perpendicular to the longitudinal axis a' of the boot, but are arranged in such a way in relation to the line that has just been mentioned that the joint devices 12, that are present on the outside 6 of the boot, are displaced inward toward the toe cap of the boot and the joint devices 14 which lie on the inside 7 of the boot are displaced toward the heel of the boot. The swivel axes 13, 15 lie on the line e which forms the angle α of preferably 3 to 4, which has already been designated, with the line b which is perpendicular to the longitudinal axis a' of the boot. Relative to the lower part 9, the upper part 10 is, as a result, capable of being inclined obliquely to the front and inward about the swivel axes 13, 16, i.e. in the same direction as the knee of the skier when adopting a forward leaning stance. The connecting line e of the swivel axes 13, 15 runs essentially parallel to the sole 8 and should preferably traverse the inner ankle bone of the person who is wearing the boot in such a way that the inner joint devices 14 cover as much as possible the designated ankle bone. The outer joint devices 12 are thereby located in front of the outer ankle bone. Since the position of the ankle bones can vary from person to person, the joint devices 12, 14 are constructed in such a way in the case of the ski boot in accordance with the invention that - in order to adapt the inner joint devices 14 to the position of the inner ankle bone 3 - the swivel axes 13, 15 are arranged to be capable of essentially parallel displacement relative to a plane which is perpendicular to the line e. A possible form of embodiment of such a joint device is described in more detail below on the basis of Figure 4. The swivel region of the upper part (10) is limited in the forward direction by a front stop 18, which is incorporated in the lower part 9, and it is limited in the backward direction by a rear stop 19 which is also incorporated in the lower part 9. The upper end of the cushioned inner boot is indicated by the reference number 20 in Figure 3. In order that swiveling of the upper part 10 be possible relative to the lower part 9 in the direction of the line d, front recesses 16 or rear recesses, intermediate zones or air

gaps 17 must be aligned in the swivel direction d between the two parts 9, 10 of the boot.

As mentioned above, Figure 4 shows a possible form of embodiment of a joint device with a swivel axis which is capable of being displaced. Part of the right foot joint is shown with a view from the front consisting of the shin bone 26, the calf bone 27 and the ankle bone 28. The inner ankle bone 3 forms part of the shin bone and the outer ankle bone 4 forms part of the calf bone. Together with the calf bone 27, the shin bone 26 is capable of swiveling with respect to the axis e about the ankle bone 28. The inner joint devices 14 of the ski boot 5 in accordance with the invention are illustrated in sectional form adjacent to the inner ankle bone 3. The figure shows the ideal case in which the joint devices 14 lie precisely concentrically relative to the ankle bone 3. If the ankle bone 3 were to be developed as illustrated in dashed lines in the figure, then the joint devices 14 would have to be displaced downward for adaptation to this position of the ankle bone. Swiveling of the upper part 10 relative to the lower part 9 of the boot is possible without pressure points only in the case where the swiveling devices 14 are adjusted to be concentric relative to the ankle bone 3. The construction of a possible form of embodiment of the joint device is described in the following section. The shell of the upper part 10 is indicated by 29 and this overlaps the shell 30 of the lower part 9. The shell 30 and the shell 29 respectively have a passageway hole 33, 40 in their overlapping region. These holes are adjacent to one another. A disk 31, which is arranged on the inside of the boot, has a concave surface, which is turned toward the ankle bone 3, and it has a cylindrical concentric extension 32 on the side which is turned away from the ankle bone, whereby the extension penetrates the designated passageway holes 33, 40 and forms the inner swivel axis 15. The diameter of the extension 32 corresponds to approximately half of the diameter of the holes 33, 40. The extension 32 is provided with an inner thread which starts from its free end. An outer disk 36 with a

concave side, which is turned toward the disk 31, has a centrally arranged thread extension 37 which is intended for engagement with the inner thread of the extension 32. The outer side of this disk preferably has a convex shape. In the non-tightened state, the two disks 31, 36 are capable of being displaced essentially parallel to a plane which is perpendicular to the axis e in the region of the cross sectional plane of the holes 33, 40 and are capable of being adapted to the position of the inner ankle bone 3. Each of the disks has teeth 38, 39 on the side which is turned toward the corresponding shaft of the part of the boot. After tightening the two disks toward one another, these teeth engage with the material of the shells 30, 29 of the two parts of the boot. As a result, additional displacement of the individual parts of the joint devices 14 is prevented on the one hand and, on the other hand, the teeth form a safeguard against the inadvertent detachment or, as the case may be, unscrewing of the two disks 31, 36. In order that the two parts 9, 10 of the boot be capable of swiveling relative to one another even after tightening the two disks 31, 36, an intermediate layer 34, preferably comprising a material which is readily capable of sliding such as Teflon, is arranged between the two parts 30 and 29 of the shell. A circular depression 35 is present - purely for aesthetic reasons - on the outer side of the shell 29 of the upper part 10, whereby the disk 36 is arranged in partially sunk form in this depression.

The characterizing features of the joint device arrangement of the sports shoe in accordance with the invention and which are listed in the present specification have been described, in the first instance, using the example of a ski boot. Logically, they are also usable in the case of other shoes with a high shaft or upper part, e.g. mountain-climbing boots.

Likewise, it would be conceivable to connect the two parts of the shoe to one another in an undetachable manner, e.g. via potential bending sites which have been stitched in. The

potential bending sites would be arranged on the basis of the same points of view as the joint devices of the present specification.

* * * *

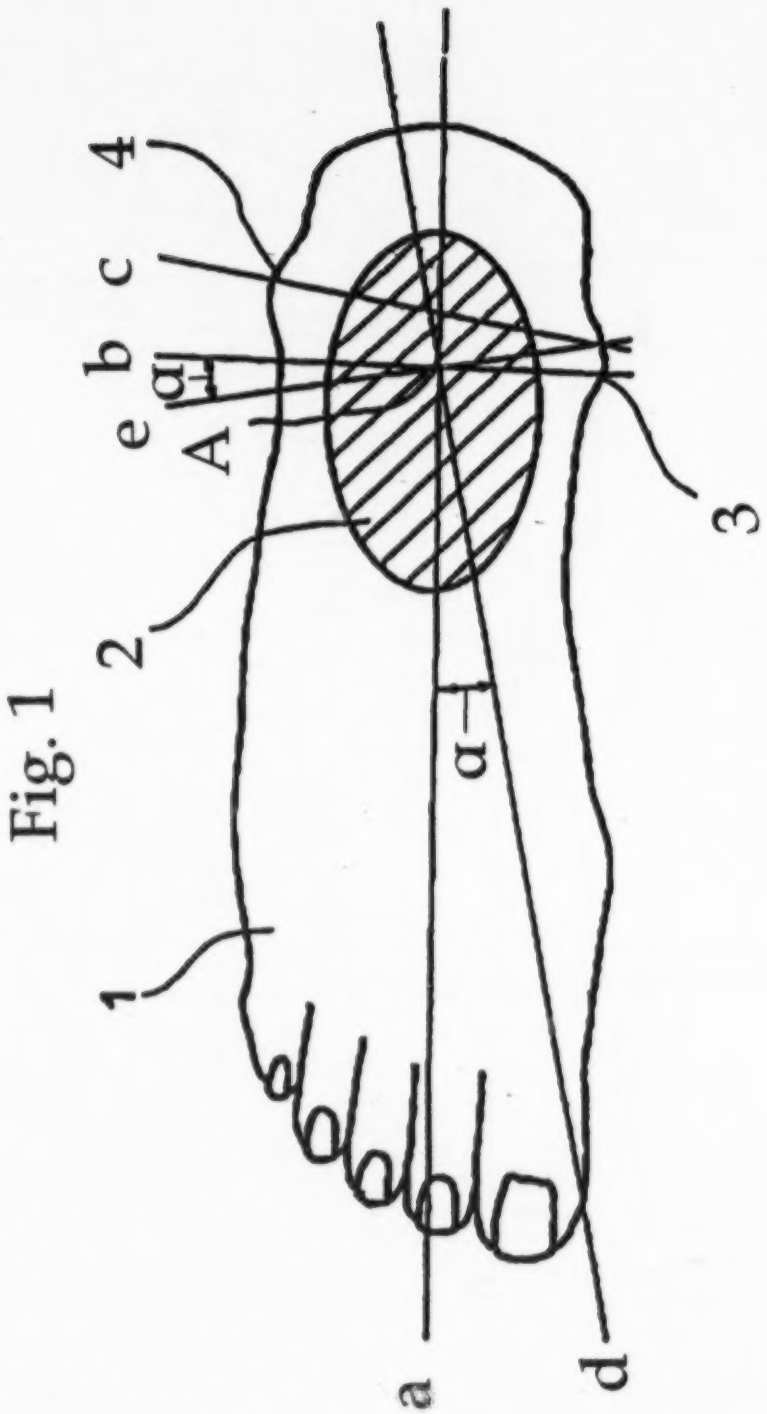


Fig. 1

Fig. 2

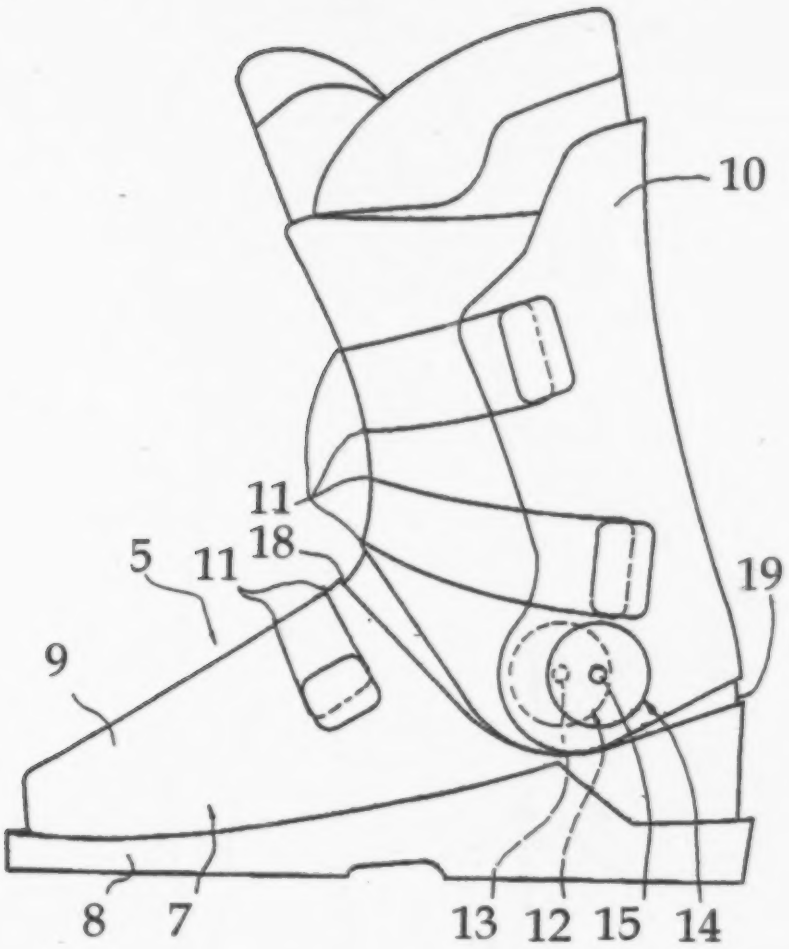


Fig.3

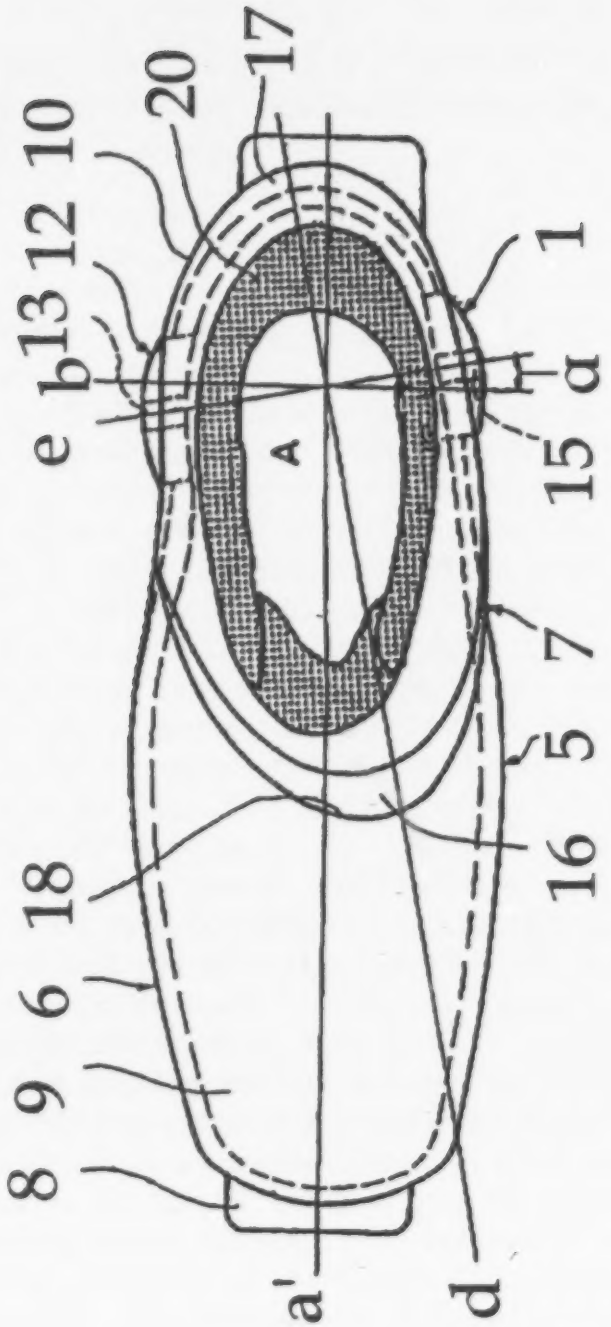
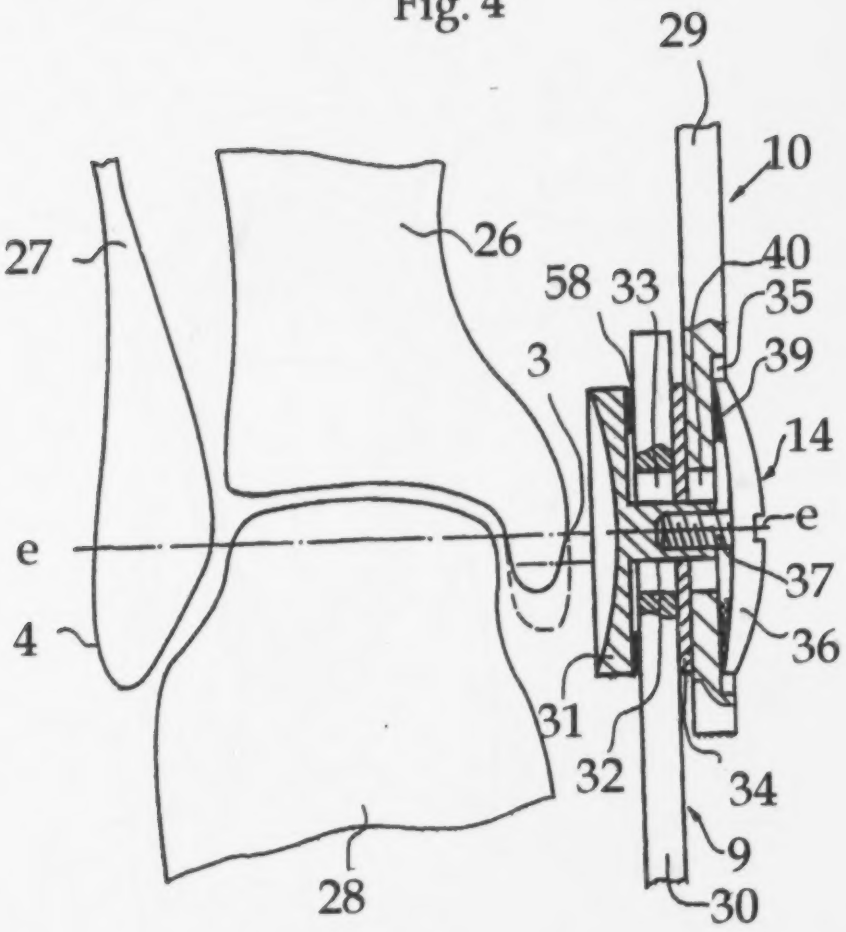


Fig. 4



APPENDIX G

Excerpts from Transcript of Oral Argument
Before the Board of Patent appeals and Interferences
August 9, 2000

* * * *

MR. DELAND: In that case, I'm going to focus pretty much on Okajima's preliminary motion that the claims are unpatentable to Bourdeau. Let me start off by saying that one thing everyone agrees on is that what we are trying to accomplish is to accommodate the motions of the snow boarder's leg during snow boarding. Everyone agrees that the snow boarder's leg moves diagonally, inwardly. So, what does the prior art show, and what is the technical achievement? I am going to focus on the patent DE-503, which shows it is known to have a snow board boot with an upper section that is pivotally connected to the rear heel section. The pivot is arranged such that the upper section pivots around an axis facing, directed in the longitudinal median plane. The problem arises that the boot wants to go one way, and the snow boarder's leg wants to go another way. Since this boot only goes one side to the other, yet the snow boarder's leg wants to go diagonally inward, you have resistance. The boot doesn't want to go where the leg wants to go. So you're going to get pressure points, and discomfort, et cetera.

How does both Bourdeau and Okajima solve the problem? They do it by inclining the pivot axis from the longitudinal median plane, so that the leg section of the boot pivots in the same direction as the leg. So the boot goes in the same direction as the leg. So the difference really between the prior art and the count is that we incline the pivot axis from the longitudinal median plane. Okajima has to come up with a disclosure or suggestion to incline a pivot axis in the boot from

the longitudinal median plane, so that the boot will pivot in the same direction as the leg.

The prior art that Okajima referred to in the motion is this EP-400, which is faced with the same problem, in that it also shows a boot that has an upper section pivotally connected to a lower section, so that the upper section pivots around an axis.

JUDGE LEE: Which exhibit is that?

MR. DELAND: EP-400 I believe was Exhibit OX-1. Okajima's Exhibit OX-1. The EP-400 is faced with the same problem, in that the known boots that have an upper section pivotally connected to the lower section pivots one way. But they also want to accommodate a skier's leg that moves diagonally inwardly. So again we have the same problem where the boot wants to go one way, the leg wants to go the other way, so the boot resists the motion of the leg, and causes pressure points and discomfort. How does EP-400 solve the problem? They do it by inclining the pivot axis, so that the upper portion of the boot pivots in the same direction as the leg.

JUDGE MEDLEY: The EP-400 has two journals on either side of the boot, right?

MR. DELAND: Yes. It does, correct.

JUDGE MEDLEY: And the DE-503 just has the journal going directly in the very back?

MR. DELAND: Yes. That is correct.

JUDGE MEDLEY: And the invention is just one pivot point journal on the medial side of the boot, correct?

MR. DELAND: Well, there is nothing in the claims that says just one pivot. It just says having a pivot axis that is inclined relative to the longitudinal median plane.

JUDGE LEE: Sir, if the argument is anticipation, then it doesn't matter if the EP-400 shows a double pivot. But when you're talking about obviousness, what would the motivation be, in light of this completely different type of boot, where the key is having two joints on opposite sides?

MR. DELAND: Let me recite the controlling aspect. Now, it's true that depending on how much you want to focus in on

the technical details of the reference will color, I think, one's perception of what and what not the art teaches. And I think everyone agrees, and I believe even Judge Lee stated in his final decision that -- not final decision, but the decision on preliminary motions, that "A reference must be considered for everything it teaches by way of technology, and is not limited to the particular invention it is described, and attempting to protect." And indeed, I also mentioned in my brief the case that indicated that it is not the actual technical details, but it's really the teaching of the reference overall. And my argument is, one of my arguments, is that we've got the same problem, and the same solution to that problem. Not only that, but both of them are accommodating diagonally-inward movement of the leg. Now, I'm not trying to avoid the question. But it's just, I feel that I don't think the suggestion of obviousness is that strict that, you know, one boot has this screw, and this one has a strap, and this one has got this rigid section, and this one has this shape of a heel. So one argument I'm making, whether people agree with me or not, is that you have the same problem, the same solution to the problem. And I believe that one of ordinary skill in the art would go and use the same solution to solve the same problem, that is, to incline a pivot axis.

Now there are three arguments. I went a bit on a tangent there. There are three arguments that I made in the papers filed in this interference. One is we already have, I believe, an admission by Bourdeau that based on the teachings of EP-400, and this was provided in the papers, saying that from the teaching of EP-400, one of ordinary skill in the art would design a boot with an axis of rotation that corresponds to the actual direction of movement of the lower leg during forward flex. I believe that that, in itself, for claims that are not at all directed to any particular angle, would adopt the teachings of EP-400 to accomplish the same thing. In other words, yes. That's exactly what both parties are doing. They're making a boot that inclines the movement of the leg diagonally-inwardly. Whether it be during forward flex, or what, it's still the same

thing. And again, remember that at least as far as Claims 27 and 28 go, there is no angle recited in any of those particular claims. And I know that there has been some back-pedalling since, to say that, well, it's only going directly forward. But there's nothing that says that this invention can't be applied if you're not attempting to move the leg straight forward. You know, EP-400 says that if the boot doesn't go where you want it to go, move the pivot axis so it does go where you want it to go. And that is, so that the leg can move diagonally inwardly. They say as much. You angle the pivot so that the boot goes in the actual direction of the leg.

JUDGE LEE: Counsel, my question is, why would a ski boot that requires a double joint on opposite sides motivate one skilled in the art to modify the snow board boots? Why would the EP-40 reference, which discloses a ski boot requiring two joints on opposite sides, why would that motivate one with skill in the art to modify the structure of snow board boots, which require only a single pivot on one side?

MR. DELAND: I believe it's because of the general teaching of using the same solution to solve the same problem. Now, in addition to the admission, there were two other tests that I said that this case solves. I called it the Promold/Winslow test, and the second one I called the Rouffet/Sernaker test. Mr. Fink took issue that these were not tests that are readily recognized in the courts. But I only gave the tests that name. But what I'm really doing is, I'm taking language right out of the current federal cases, namely the Rouffet case, which says that there is typically three sources of motivation that combine the references. And let me get my case, and I can perhaps read it exactly to you. ***In re Rouffet***: "Although the suggestion to combine references may flow from the nature of the problem" -- that's one, and that is what I would call the Promold/Winslow test - "the suggestion more often comes from the teachings of the pertinent references." That's what I call the Rouffet/Sernaker test. They mentioned a third test which I didn't mention in my brief, because I didn't think it was relevant. It says, "Or from the ordinary knowledge of those

skilled in the art that certain references are of special importance in a particular field."

One of the difficulties I face when I am in a prosecution mode is that a lot of time there is a lot of rhetoric, and a lot of general statements, and the art shows this, and the art shows that, without any real guidance. And without following any way, path, of coming to the result. What I was hoping to do with this brief is at least give the examining corps as well as my client something that they can go on, so that when they are making these rejections, they have some reasoning to back up the rejection, instead of just saying, this side shows this, this side shows that; I don't think there is a suggestion to combine. And these tests are based on established case law.

In the Promold/Winslow case, you know the problem. Let me mention also that it is undisputed in this case that the level of skill in the art is high. Now, I'm not saying that a high level of skill alone is sufficient to overcome any suggestion to combine. But what I'm saying is, especially when applied to my Promold/Winslow test, if you already have the problem in your mind, and you're looking for a solution to a problem, then as you come across a member of ordinary skill in the art having a high level of skill, comes across EP-400, we know the problem. It says that the boot wants to go one way. The leg wants to go the other way. Pressure points are being caused, causing discomfort. A high-level-of-skill person will look at EP-400 and say, oh, here's the same problem. The boot wants to go one way. The leg wants to go the other way. Well, how do they solve it? Move the pivot axis so that the boot will pivot so that it goes the same direction as the leg. That would be the Winslow test.

And the Rouffet-Sernaker test, you don't necessarily have to know what the problem is, you're just trying to make a better boot. So you go along the prior art. You see DE-503. And you say, how can I make this boot better? And so then you're searching the prior art. And you see, you notice that, oh, according to - we know that snow boarders move their legs forward and inward. This boot doesn't accommodate that. I'll

bet I can make this boot better by making it go in the same direction. And you see that there are references like EP-400 where they do exactly that. And you make the conclusion that, yeah, I think I'll come up with a better boot.

Now I also have another thing, Judge Lee, to hopefully answer your question. I realize there is a motion to suppress evidence, and you'll notice that I haven't mentioned the evidence that is attempted to be suppressed. I believe I don't even need to rely on the evidence that is being suppressed. Because I believe we have Bourdeau's own testimony acknowledging the fact that it is known that to make a snow board boot with an axis that is inclined relative to the longitudinal median plane, and that reference is, I believe it was Okajima's OX-6, which is Bourdeau's unpublished patent application, French reference 2734128, Okajima Exhibit OX-6, page 2, second to the last paragraph, he refers to a patent number AT-2277/92. Which by the way is AT- 637, which is attempted to be suppressed. And he does mention that in that boot, the purpose is to allow the boot to swing about pivot axis that is inclined relative to the median longitudinal plane. So I submit that this is Bourdeau speaking. This isn't someone else. This is the inventor himself of Bourdeau's application. This is his prior testimony saying that he acknowledges that it is known to have a snow board boot with an axis that is inclined, a pivot axis that is inclined relative to the longitudinal median plane. So there is a suggestion right there. It is already known in the art to take a pivot axis that is inclined relative to the longitudinal median plane. So even without EP-400, given DE-503, I think there is definitely a suggestion in the art to make the DE-503 do exactly what Bourdeau acknowledges already occurs in the prior art.

JUDGE MEDLEY: But there's different ways of doing that. This reference that you just talked about, if I understand the reference, remember there's like rubber or something on the bottom of the shoe, of the boot, that makes the wearer of the boot be able to incline forwardly and downwardly.

MR. DELAND: Yes. That is correct.

JUDGE MEDLEY: So that still doesn't answer Judge Lee's question that, even though it was known that a snow boarder would want to incline their lower leg downwardly and inwardly, that there is different ways to do it. And if you look at all the prior art here, there is not a single reference that anticipates, and that's what we're trying to figure out, why there would be a - why there would be a -

MR. DELAND: A suggestion.

JUDGE MEDLEY: Right. A suggestion -

MR. DELAND: Well, certainly -

JUDGE LEE: I'm sorry. Let me try again.

MR. DELAND: I'm sorry, Judge.

JUDGE LEE: In all the snow board boot embodiments in the prior art, the pivot is on the longitudinal plane, so the leg member can swing left, or swing right, lateral rotation. But in this EP-400 ski boot, when you have the opposite sides all pinned down or journaled-in, then there is no lateral rotation allowed. The only pivot you get is a forward and backwards.

MR. DELAND: No. No. The express purpose of the EP-400 is to make it so that the boot will pivot in so that it will move along this direction D.

JUDGE LEE: No. But if you have the opposite side all tied down at the joint, how is it able to do a lateral rotation?

MR. DELAND: A lateral rotation?

JUDGE LEE: Yes. Like in the prior art snow board boots, where the pivot is along the center, the leg member on top can rotate left, or rotate right.

MR. DELAND: Yes.

JUDGE LEE: Now, with this EP-400 ski boot, you can't possibly do that, because the opposite sides are tied down with the joints.

MR. DELAND: Well first of all, even the claimed invention can't - if that's true, the way you're determining it is, it has to be able to go left and right.

JUDGE LEE: No, I'm not saying the claim requires it. I'm just saying that the prior art snow board boots are of one type of construction, and this ski boot is of the other type. And there

is just no motivation to go from one to the other when they act differently.

MR. DELAND: No, I think the motivation, and I don't think they act --that's just it. I guess perhaps maybe we disagree. I don't believe they act differently. I believe that given the fact that it is known and desirable to have a boot that pivots along an axis inclined relative to the median plane, regardless of the structure, I mean, we're talking about the general teachings. Not the specific embodiments. It's not really proper, well, I can't say proper. But it's not really the test that the specific embodiment has to disclose exactly. Because it almost turns the test into one where there has to be an express suggestion. And the prior art is saying, take this one pivoting single boot, and make it pivot. I mean, if that's the test, then that will certainly help me in the long run, because I'll get a lot more patents. Because then I can go to the examining corps and say, look at how high the bar is.

JUDGE LEE: I understand what you're saying. But it seems critical that the EP-400 requires both joints on opposite sides. And when you do have both joints, they're tied down. And you can't rotate the leg member both ways. And if you can't rotate the leg member both ways, you can't apply it to the snow board boot embodiments.

MR. DELAND: Well, I guess I believe that what EP-400 is, and I don't need, I guess, to keep repeating myself, I believe we're doing the same solution to the same problem. There might be some technical details involved. But I still believe that the motivation comes from the desire to use the same techniques to solve the same theory of operation, to solve the same problem. I guess I don't really have much more to add to it.

JUDGE MEDLEY: Okay.